

In the Claims:

1 1. (Amended) A method of performing a cardiac procedure, comprising
2 the steps ~~of~~ for:

3 (a) making a subxiphoid incision to provide an entry point for an endoscopic
4 cannula, ~~wherein said endoscopic cannula has~~ having at least one access port;

5 (b) inserting ~~said~~ a rigid endoscopic cannula ~~into the incision~~ having a
6 transparent tip at a distal end thereof;

7 (c) advancing the tip of said endoscopic cannula through tissue to the
8 pericardium under endoscopic visualization through the tip; and

9 (d) advancing a surgical instrument through said at least one access port of
10 said endoscopic cannula.

1 2. (Amended) A method according to claim 1, further comprising the
2 steps ~~of~~ for:

3 (e) after step (c) and before step (d), providing an opening in the pericardium
4 for the advancement of said endoscopic cannula into the pericardium;

5 (f) after step (e) and before step (d), advancing said endoscopic cannula into
6 the pericardium through said opening; and

7 (g) after step (d), performing the surgical procedure on the heart.

1 3. The method of claim 1, wherein the subxiphoid incision has a length
2 no longer than required for insertion of the endoscopic cannula.

1 4. The method of claim 1, wherein only a single subxiphoid incision is
2 made.

1 5. The method of claim 1, wherein at least one additional subxiphoid
2 incision is made during step (a), and the method also includes the step of:

3 (e) inserting an additional surgical instrument through said at least one
4 additional incision.

1 6. (Amended) The method of claim 1, further comprising:

2 ~~(e) before step (b), using a dilation tool~~ laterally expanding a passage
3 through tissue from the subxiphoid incision to provide a dilated cavity to facilitate
4 insertion of the endoscopic cannula.

1 7. (Amended) The method of claim 2, wherein said opening in the
2 pericardium is provided by manipulating ~~a pericardial~~ an entry instrument through
3 the at least one access port of the rigid endoscopic cannula.

1 8. (Unexamined) The method of claim 7, wherein the endoscopic
2 cannula has a lumen and the pericardial entry instrument is advanced to the
3 pericardium through the lumen.

1 9. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a stapler for stapling off the atrial appendage.

1 10. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is an ablation device.

1 11. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a device for performing epicardial mapping.

1 12. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a device for performing intrapericardial drug
3 delivery.

1 13. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a device for performing a myocardial biopsy.

1 15. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a needle for injecting cardiac muscle cells or
3 undifferentiated satellite cells for cellular cardiomyoplasty.

1 16. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a cannula for injecting pharmacological agents
3 for angiogenesis.

1 17. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a robotic, cutting, stabilizing, or anastomotic
3 instrument for performing coronary artery bypass or coronary artery bypass
4 grafting.

1 18. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is an energy probe or mechanical piercing element
3 for piercing the heart muscle for transmyocardial revascularization.

1 19. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a device for creating a pericardial window.

1 20. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a stapler for stapling off the atrial appendage.

1 21. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a suture loop for cinching off the atrial
3 appendage.

1 22. (Unexamined) The method of claim 1, wherein said surgical
2 instrument advanced in step (d) is a clip for sealing off the atrial appendage.

1 23. (Amended) The method of claim 2, wherein said ~~endoscopic cannula~~
2 ~~is advanced during step (f) to~~ opening is formed at a location near the apex of the
3 heart.

1 24. (Amended) The method of claim 2, wherein the rigid endoscopic
2 cannula is advanced during step (f) to a location at the anterior region of the heart
3 and is then swept to throughout regions including the posterior region of the heart.

1 25. (Amended) The method of claim 2, wherein step (e) includes the
2 steps of for:

3 gripping a flap of the pericardium under endoscopic visualization using a
4 ~~pericardial~~ an entry instrument introduced through the at least one access port of
5 the endoscopic cannula; and

6 cutting said flap of the pericardium while spaced away from the underlying
7 heart to create an opening in the pericardium under endoscopic visualization.

1 26. (Amended) The method of claim 25, wherein step (e) further
2 comprises the step of for:

3 aligning the ~~pericardial~~ entry instrument substantially tangentially to the
4 pericardium under endoscopic visualization while gripping the flap of the
5 pericardium.

1 27. (Amended) The method of claim 25, wherein the cutting step further
2 comprises cutting the flap of the pericardium while spaced away from the
3 underlying heart.

1 28. (Unexamined) A method of performing a surgical procedure on a
2 mediastinal organ other than the heart, comprising the steps of:

3 (a) making a subxiphoid incision to provide an entry point for an endoscopic
4 cannula, wherein said endoscopic cannula has at least one access port;

5 (b) inserting said endoscopic cannula into the incision;

6 (c) advancing said endoscopic cannula to a surgical site within the
7 mediastinum under endoscopic visualization; and

8 (d) advancing a surgical instrument through said at least one access port of
9 said endoscopic cannula.

1 29. (Unexamined) The method of claim 28, further comprising the step
2 of:

3 (e) after step (d), performing the surgical procedure on said mediastinal
4 organ.

1 30. (Unexamined) The method of claim 28, wherein the subxiphoid
2 incision has a length no longer than required for insertion of the endoscopic
3 cannula.

1 31. (Unexamined) The method of claim 28, wherein only a single
2 subxiphoid incision is made.

1 32. (Unexamined) The method of claim 28, wherein at least one
2 additional subxiphoid incision is made during step (a), and the method also
3 includes the step of:

4 (e) inserting an additional surgical instrument through said at least one
5 additional incision.

1 33. (Unexamined) The method of claim 28, further comprising:

2 (e) before step (b), using a dilation tool to provide a dilated cavity to
3 facilitate insertion of the endoscopic cannula.

1 34. (Amended) A method of performing a cardiac procedure with ~~an~~ a
2 rigid endoscopic cannula having ~~an~~ a laterally expandable sheath overlying the
3 endoscopic cannula, comprising: the steps for:

4 (a) incising skin overlying an entry point for the cardiac procedures;

5 (b) inserting ~~an~~ the rigid endoscopic cannula with ~~an~~ the expandable sheath
6 into the incision;

7 (c) advancing the endoscopic cannula ~~to~~ through tissue toward the
8 pericardium under endoscopic visualization; and

9 (d) ~~dilating a working cavity~~ laterally expanding the sheath responsive to
10 passing the endoscopic cannula through the expandable sheath: to form a working
11 cavity in dilated tissue.

1 35. (Amended) The method of claim 34 wherein dilating the working
2 cavity further comprises:

3 ~~dilating a working cavity~~ laterally expanding the sheath responsive to
4 ~~removing withdrawing the endoscopic cannula to a point near~~ from the sheath in a
5 direction toward the proximal end ~~of the expandable sheath~~ thereof.

1 36. (Amended) The method of claim 34 further comprising the step of
2 for:

3 (e) dilating the working cavity to larger lateral dimensions than the
4 endoscopic cannula responsive to insertion into the expandable sheath of surgical
5 tools having dimensions greater than the endoscopic cannula ~~into the expandable~~
6 ~~sheath.~~

1 37. (Amended) The method of claim 34 further comprising the steps of
2 for:

3 (e) inserting into a proximate end of the expandable sheath a surgical tool for
4 performing a cardiac procedure ~~into a proximate end of the expandable sheath~~ in

5 which the surgical tool has a maximal lateral dimension greater than a maximal
6 lateral dimension of the expandable sheath overlying the endoscopic cannula;

7 (f) advancing the surgical tool within the expandable sheath ~~to~~ toward a
8 distal end ~~of~~ thereof to laterally expand the expandable sheath; and

9 (g) performing a cardiac procedure using the surgical tool.

1 38. (Unexamined) An endoscopic cannula, comprising:

2 a cannula, having an elongated body having arcuate shape and defining at
3 least one lumen;

4 a tip positioned at a distal end of said elongated body, said tip having a
5 tapered distal end and being transparent for facilitating visualization through said
6 tip; and

7 an endoscope, positioned at least partially in said at least one lumen for
8 providing visualization of a surgical procedure through said transparent tapered tip.

1 39. (Unexamined) The endoscopic cannula of claim 38, wherein said
2 cannula is composed of a flexible material.